

# Food and Farming

MEA factsheet #1h



## Your Carbon Foodprint

In the UK, food production and distribution accounts for about one fifth of total energy use and emissions of carbon dioxide (CO<sub>2</sub>) and other gases that cause climate change. Our intensive agricultural systems are hungry for oil - 10 calories of fossil-fuel energy go to produce each single calorie of food energy. The emissions come not just from the transport of food, but from every stage of the chain – the conversion of land to agricultural use, the energy used to make fertilisers, pesticides and farm machinery, the impact of agriculture on the soil (a natural carbon store), food processing, transport, refrigeration, and how we use food and deal with the waste from all the different stages.

In addition to CO<sub>2</sub> from fossil fuels, food production contributes other greenhouse gases including nitrous oxide - three hundred times more potent than CO<sub>2</sub> - and methane. In all, the production and distribution of food generates 30% of the global man-made contribution to climate change.

These are complex problems with no single solution. A growing body of evidence, however, indicates that emissions from the food sector can be significantly reduced if we make the right choices as consumers. This factsheet shows how.

## Energy Inputs

The majority of agriculture's contribution to climate change comes from the use of synthetic nitrogen fertiliser. This takes an enormous amount of energy to produce and generates nitrous oxide, a greenhouse gas much more potent than CO<sub>2</sub>. Organic farming avoids these fertilizers. Organic and free range farming are also usually less energy-intensive than industrial agriculture.



Free range chickens seeking shade

Chilled or frozen food require much more energy for storage. Frozen foods also tend to be stored for longer and so will have accumulated a higher carbon footprint by the time they are consumed. Plastic packaging uses energy in its manufacture, so avoid overpackaged convenience foods.

CO<sub>2</sub> may be emitted during transport to and from the shops. Use a list to plan your shopping trips rather than making repeated visits to “top up”. Try walking, cycling or using public transport to get to the shops. Home delivery has also been shown to result in lower emissions.

## Seasonality

There are many reasons to eat seasonally. Your ingredients will be fresher and therefore tastier. If produced locally, they will have less impact on the environment, thanks to reduced energy use and associated CO<sub>2</sub> emissions from their production and transportation. Buying seasonal fruit and vegetables is also a good way to support your local economy and farming communities.



English plums are in season in September

## Food Miles

We import over half our food, often over great distances, yet much of it could be grown here in ways that benefit our green spaces.

Locally grown and prepared food cuts down on food miles and makes it easier to identify and support environmentally benign food production methods. There are other benefits to locally produced food. It supports local economies and restores the links between producers and consumers. This helps farmers respond to local

needs and reduce waste. Farmers' markets and organic box schemes are great ways to support local producers. Or, for the ultimate in local food, grow your own in your garden or on an allotment or arm yourself with a wild food guide and go foraging!



## Food Choices

According to the United Nations, animal farming globally causes more greenhouse gas emissions than all of the cars, lorries and planes in the world put together, and the impact is increasing. To keep pace with growing global demand, forests are being cleared for ranching and to grow grains to feed farm animals. Forests are vital in tackling climate change as they absorb CO<sub>2</sub>; if they are cleared this capacity is lost.



Forest burned for agriculture, southern Mexico.

Eating a lot of meat, especially beef, results in a higher carbon footprint than eating non meat products. Cut down on your meat consumption, or switch to a meat with a smaller carbon footprint, like chicken

## Food Waste

Food, and the energy, water and soils needed to produce it, are precious resources, yet we throw away a third of the food we buy, 60% of which is untouched. Check regularly to see what needs using up. 'Use by' dates refer to food safety issues but 'best before' dates are only a guide to eating quality. Make the most of what's in your fridge and you will reduce your weekly shopping bill as well! Planning your meals in advance of your weekly shop is another great way to reduce food waste. Making a shopping list and sticking to it means you're less likely to buy things you won't use.

When you've done all you can to reduce food waste, add vegetable peelings, tea bags and coffee grounds to your compost. It reduces greenhouse gas emissions from landfill and grows great plants. Many local authorities now offer free or low cost compost bins.

## Bottled Water

Bottled water has a much higher carbon footprint than tap water - more than three hundred times higher in the case of some imported brands. This is due to the energy needed to transport bottled water, and to manufacture the bottles themselves. Take a bottle of tap water with you when you go out, and ask for tap water in restaurants.



## Further Information:

[bigbarn.co.uk](http://bigbarn.co.uk)

A directory of UK local food producers.

**Soil Association**

0117 314 5000 [soilassociation.org](http://soilassociation.org)

Information on organic food and farming, including local suppliers

[lovefoodhatewaste.com](http://lovefoodhatewaste.com)

Practical information and recipes for your leftovers

[eatseasonably.co.uk](http://eatseasonably.co.uk)

Guide to buying and using seasonal produce

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[www.mea.org.uk](http://www.mea.org.uk)  
[info@mea.org.uk](mailto:info@mea.org.uk)

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